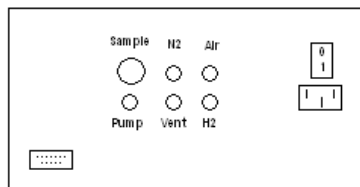



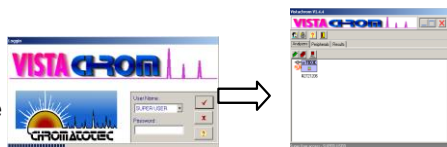
ANALYSER INSTALLATION



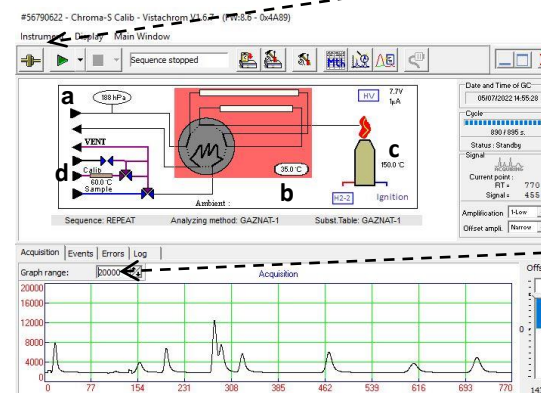
- 1) Connect **zero air** (from airmoPURE) to "Valve Air" inlet with **4 bars** pressure. Connect **zero air** (from airmoPURE) to "GC" and "AIR" inlets, with **3 Bars** pressure.
- 2) Connect **hydrogen** (from Hydroxychrom) on "H2" inlet with **4 Bars** pressure. (See Easy start hydroxychrom).
- 3) Install the **DMS permeation tube** into the internal calibration oven. Check the pressure on the pressure regulator: **0.4 bars**.
- 4) Connect the **Natural gas** on "SAMPLE" inlet. Adjust the flow to **80 ml/min** using the adjustment valve into the analyzer.
- 5) Connect a tube on the **VENT** outlet outward.
- 6) **Plug in USB keyboard and mouse on the PC.**
- 7) Plug the **power supply cable** and switch "**ON**" the instrument. The "**OK**" and "**stand by**" LEDs turn on.
- 8) Start the **ANALYSIS**.

ANALYSIS START

- 1) Open **Vistachrom** .
- 2) Select "**super user**" and enter the password "**1234**". Click on "**enter**".
- 3) Double click on the analyser icon (**#56790622**).
- 4) The synoptic of the analyser appears.



- 5) Click on "**Log ON**"  to connect the analyser to Vistachrom.





GC hour

Signal value

Amplification

Signal scale adjustment




Offset Adjustment

- 6) Check the information on the synoptic and compare with the Quality Control report:
 - a. Pressure on the head of the column: **189 hPa** (+/- 1 hPa)
 - b. Columns temperature: **35°C**
 - c. Detector temperature: **150°C**
 - d. Calibration oven temperature: **60°C**
- 7) Wait for the stabilisation of the detector temperature and light the flame. For that, from Vistachrom synoptic:
 - a. Click the **H2-2** button: it becomes red.
 - b. Wait for 10 seconds and click on " **Ignition** " button: it becomes red. You should hear the ignition sound (flame 1 light).
 - c. Click on **H2-2** button: it becomes blue. The flame 2 lights immediately.
 - d. Click on " **Ignition** " button: it becomes blue.
- 8) **Double click** on the **GC hour** to synchronise the GC and the PC.
- 9) Select and load the working sequence by pressing .
- 10) **Click on**  to start the analysis. Adjust the baseline, if necessary, around 3000 (the signal appears during the analysis cycle).

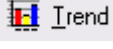

DATA EXPLOITATION

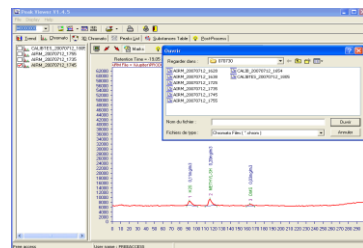
Data is automatically collected into the folders:
"D/Vistachrom/#56790622/Data or Trend", ordered chronologically.

Different ways to display the data:

- 1) From the synoptic, click on  to see the last integration report.
- 2) From the synoptic, click on  to open **Peak viewer** and click on  to open the chromatograms needed in:
D/Vistachrom/#56790622/Data/YYYY/MM/DD
- 3) Data of each analysis is collected into a table in ASC format for post treatment: **D/Vistachrom/#56790622/Trend**


Display in "peak viewer":

- 1)  allows to display the follow-up of a parameter (area, retention time, sensibility or concentration) on several days for each substance.
- 2)  allows to see the chromatogram of each analysis.



CALIBRATION

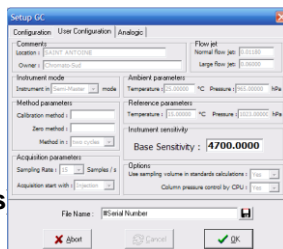
Manual calculation of linearization formula (factor A) with constant BS (ua/mg.m⁻³) (See Easy calib chroma S):

To see the **Base Sensitivity**, click on  from **Vistachrom synoptic**.

Example: DMS = **0.57 ppm** (= 1.47 mg/m³)

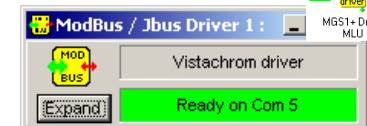
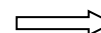
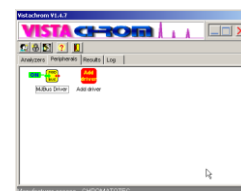
Base sensitivity = 100000 (1mg/m³ = 100000 area units and factor A = 0.374


If the analyser measures **0.5 ppm** instead of 0.57 ppm
the new factor **A** has to be recalculated by: $0.374 \times (0.57 / 0.5) = 0.426$.







COMMUNICATION PROTOCOLE For data transfer (ppb or µg/m³)

MJ Bus driver (ModBus) runs automatically with Vistachrom. If not, select **Peripherals** in vistachrom window and double click on:



Transferred data is the same than the one displayed when you click on  from Vistachrom synoptic.

ANALYSER STOP

- 1) From the synoptic, press  to select **"stop at cycle end"**.
- 2) At the end of the cycle, the analyser has to be in 'Stand by' (**stand by** and **OK** leds **light**).
- 3) Disconnect the analyser by pressing   
- 4) Close the software.
- 5) Switch off the analyser and the sampling pump.
- 6) Close gases **H₂** and **Air**.
- 7) Remove the permeation tube from the calibration oven.